STATEMENT OF BASIS (AI No. 5176)

for draft Louisiana Pollutant Discharge Elimination System permit No. LA0114553 to discharge to waters of the State of Louisiana.

THE APPLICANT IS: TOTAL Petrochemicals USA, Inc.
Carville Polystyrene Plant
P.O. Box 98
Carville, LA 70721

ISSUING OFFICE: Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

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DATE PREPARED: March 14, 2007

1. PERMIT STATUS

A. Reason For Permit Action:

Proposed reissuance of an Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46.

* In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401 and 405-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC Chapter 11) will not have dual references.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.4901, 4903, and 2301.F.

B. NPDES permit - NPDES permit effective date: N/A
NPDES permit expiration date: N/A

EPA has not retained enforcement authority.

C. LPDES permit - LPDES permit effective date: December 1, 2001
LPDES permit expiration date: November 30, 2006

D. Date Application Received: November 29, 2006. Additional information received on January 10, 2007 (See the May 29, 2007 Memorandum to the Main File) and March 14, 2007.

2. FACILITY INFORMATION

A. FACILITY TYPE/ACTIVITY - polystyrene production plant

TOTAL Petrochemicals USA, Inc., Carville Polystyrene Plant is an existing polystyrene production plant that manufactures impact and crystal polystyrene. TOTAL transfers via pipeline its process wastewater, process area stormwater, and utility wastewater to Cos-Mar, a neighboring styrene monomer and ethylbenzene manufacturer, for treatment and discharge under LPDES permit LA0003751.

TOTAL's current discharges consist of non-process area stormwater runoff from developed and undeveloped portions of the site, the hopper car loading area, and the main warehouse roof; and de minimus wastewaters including steam trap condensate, fire system test water, eye wash and safety shower station water, uncontaminated clarified water, general facility washwater (facility washdown water, irrigation water, dust control, etc.), and hydrostatic test wastewater.

B. FEE RATE
1. Fee Rating Facility Type: minor
2. Complexity Type: III

BPJ, LAC 33:IX.1319 classifies the discharges from this type of facility under Standard Industrial Classification Code 2821 with a complexity of VI. Since there are no process discharges being discharged under this permit, the complexity has been downgraded to a III.

3. Wastewater Type: III
4. SIC code: 2821

C. LOCATION - 6225 Highway 75 (River Road) in Carville, Iberville Parish Latitude 30°13'42", Longitude 91°04'21"

3. OUTFALL INFORMATION

Outfall 002

Discharge Type: the discharge of low contamination potential stormwater runoff from developed and undeveloped portions of the site and de minimus wastewaters including steam trap condensate, fire system test water, eye wash and safety shower station water, uncontaminated clarified water, general facility washwater (facility washdown water, irrigation water, dust control, etc.), uncontaminated hydroblast water, and previously monitored hydrostatic test wastewater from Internal Outfall 004.

Treatment: None

Location: at the point of discharge located at the Northwest corner of the property prior to combining with the waters of Bayou Braud; thence into Spanish Lake at Latitude 30°13'58", Longitude 91°04'35".

Flow: Intermittent

Discharge Route: An unnamed drainage ditch; thence into Bayou Braud; thence into Spanish Lake

Outfall 003

Discharge Type: discharge of low contamination potential stormwater runoff from the hopper car loading area and the main warehouse roof; and de minimus wastewaters including steam trap condensate, fire system test water, eye wash and safety shower station water, uncontaminated clarified water, general facility washwater (facility washdown water, irrigation water, dust control, etc.), uncontaminated hydroblast water, and previously monitored hydrostatic test wastewater from Internal Outfall 004.

Treatment: Filtration

Location: at the point of discharge Northeast of the Main Warehouse prior to combining with the waters of Cos-Mar's (LA0003751) drainage ditch system at Latitude 30°13'45", Longitude 91°04'11".

Flow: Intermittent

Discharge Route: Cos-Mar's ditch system; thence into Bayou Braud; thence into Spanish Lake

Internal Outfall 004

Discharge Type: the discharge of hydrostatic test wastewater.

Treatment: None

Location: various locations throughout the plant

Flow: Intermittent

Discharge Route: Can be discharged through Final Outfall 002 or 003.

4. RECEIVING WATERS

STREAM - Bayou Braud, thence to Spanish Lake

BASIN AND SEGMENT - Pontchartrain Basin, Segment 040201

DESIGNATED USES - a. primary contact recreation
b. secondary contact recreation
c. propagation of fish and wildlife

5. PROPOSED CHANGES

A. Outfall 002 - Monitor and report only requirements have been established based on 303(d) impairments in Subsegment 040201. This information will be used to gather data for future TMDL development. The frequencies have been established at once per quarter based on BPJ and current guidance for TMDL data collection.

B. Outfall 003 - Flow has been added as a parameter to this outfall in accordance with LAC 33:IX.2707.I.1.b.

C. Internal Outfall 004 - newly added outfall to cover hydrostatic test discharges from the facility. All limitations are consistent with those established in the LDEQ Hydrostatic Test General Permit, LAG670000.

6. EXISTING EFFLUENT LIMITS

Outfall 002

PARAMETER	MONTHLY AVERAGE (Mg/L)	DAILY MAXIMUM (Mg/L)
Flow (MGD)	Report	Report
TOC	---	50
Oil & Grease	---	15
pH	6.0 s.u.	9.0 s.u.

Outfall 003

PARAMETER	MONTHLY AVERAGE (Mg/L)	DAILY MAXIMUM (Mg/L)
TSS	40	130

7. PROPOSED EFFLUENT LIMITATIONS/REQUIREMENTS

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707/40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations promulgated at LAC 33:IX.2707.A/40 CFR Part 122.44(a) require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two.

The following section explains the rationale for the permit limitations and monitoring frequencies stated in the draft permit.

***Outfall 002** - the discharge of low contamination potential stormwater runoff from developed and undeveloped portions of the site and de minimus wastewaters including steam trap condensate, fire system test water, eye-wash and safety shower station water, uncontaminated clarified water, general facility washwater (facility washdown water, irrigation water, dust control, etc.), uncontaminated hydroblast water, and previously monitored hydrostatic test wastewater from Internal Outfall 004.

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type	Regulatory Basis
Flow (MGD)	Report	Report	1/month	Estimate	LAC 33:IX.2707.I.1.b; BPJ; current LPDES permit effective on December 1, 2001.
TOC	---	50 mg/L	1/month	Grab	BPJ; MSGP; current LPDES permit effective on December 1, 2001.
Oil & Grease	---	15 mg/L	1/month	Grab	BPJ; MSGP; current LPDES permit effective on December 1, 2001.
pH	6.0 s.u.	9.0 s.u.	1/month	Grab	LAC 33:IX.1113.C.1; BPJ; MSGP; current LPDES permit effective on December 1, 2001.
Ammonia, Total (*)	---	Report, mg/L	1/quarter	Grab	BPJ; TMDL data collection
Phosphorus, Total (*)	---	Report, mg/L	1/quarter	Grab	BPJ; TMDL data collection
Nitrate, Total (*)	---	Report, mg/L	1/quarter	Grab	BPJ; TMDL data collection
Nitrite, Total (*)	---	Report, mg/L	1/quarter	Grab	BPJ; TMDL data collection

(*) established due to 303(d) impairments

BPJ - Best Professional Judgment
MSGP- Multi-Sector General Permit, LAR050000

Flow
The reporting monthly average and daily maximum flow is based on LAC 33:IX.2707.I.1.b. The measurement frequency of once per month and the sample type of estimate is based on BPJ and the current LPDES permit effective on December 1, 2001.

Total Organic Carbon (TOC)
A daily maximum permit limitation for total organic carbon at 50 mg/L is based on the LDEQ Stormwater Guidance letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000, effective on May 1, 2006. The measurement frequency of once per month and the sample type of grab is based on BPJ and the current LPDES permit effective on December 1, 2001.

Oil and Grease
A daily maximum permit limitation for oil and grease at 15 mg/L is based on the LDEQ Stormwater Guidance letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000, effective on May 1, 2006. The measurement frequency of once per month and the sample type of grab is based on BPJ and the current LPDES permit effective on December 1, 2001.

pH
A minimum limit for pH at 6.0 standard units and a maximum limit for pH at 9.0 standard units is established to ensure that the discharge does not cause an instream exceedance of the numeric criteria for pH as established by LAC 33:IX.1113.C.1. The pH limitation is also established based on the LDEQ Stormwater Guidance letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6) and the LPDES Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities, LAR050000, effective on May 1, 2006. The measurement frequency of once per month and the sample type of grab is based on BPJ and the current LPDES permit effective on December 1, 2001.

Total Ammonia, Total Phosphorus, Total Nitrate, and Total Nitrite
Monitor and report only requirements have been established based on 303(d) impairments in Subsegment 040201. This information will be used to gather data for future TMDL development. The frequencies have been established at once per quarter based on BPJ and current guidance for TMDL data collection.

NOTE
For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.

Site-Specific Consideration(s)

None

***Outfall 003** - discharge of low contamination potential stormwater runoff from the hopper car loading area and the main warehouse roof; and de minimus wastewaters including steam trap condensate, fire system test water, eye wash and safety shower station water, uncontaminated clarified water, general facility washwater (facility washdown water, irrigation water, dust control, etc.), uncontaminated hydroblast water, and previously monitored hydrostatic test wastewater from Internal Outfall 004.

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type	Regulatory Basis
Flow (MGD)	Report	Report	1/month	Estimate	LAC 33:IX.2707.I.1.b; BPJ
TSS	40 mg/L	130 mg/L	1/month	Grab	BPJ; current LPDES permit effective on December 1, 2001.

BPJ - Best Professional Judgment

Flow
The reporting monthly average and daily maximum flow is based on LAC 33:IX.2707.I.1.b. The measurement frequency of once per month and the sample type of estimate is based on BPJ.

TSS
Regulated in the current LPDES permit effective on December 1, 2001, based on best professional judgement (BPJ) for solids control using OCPSF guidelines Subpart D for polystyrene production. These limits have been retained for this permit.

NOTE
For outfalls containing concentration limits, the usage of concentration limits is based on BPJ for similar outfalls since the flow is variable and estimated.

Site-Specific Consideration(s)

The discharges from this outfall are routed through Cos-Mar's Outfall 002. Cos-Mar completes compliance sampling for TOC, Oil & Grease, and pH under LPDES permit, LA0003751 prior to discharging to Bayou Braud. Therefore, sampling for these parameters will not be required.

***Internal Outfall 004-** the discharge of hydrostatic test wastewater.

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type	Regulatory Basis
Flow (MGD)	Report	Report	1/discharge event	Estimate	LAC 33:IX.2707.I.1.b; BPJ; Hydrostatic Test General Permit, LAG670000
TSS	---	90 mg/L	1/discharge event	Grab	BPJ; Hydrostatic Test General Permit, LAG670000
Oil & Grease	---	15 mg/L	1/discharge event	Grab	BPJ; Hydrostatic Test General Permit, LAG670000
TOC	---	50 mg/L	1/discharge event	Grab	BPJ; Hydrostatic Test General Permit, LAG670000
Benzene	---	50 µg/L	1/discharge event	Grab	BPJ; Hydrostatic Test General Permit, LAG670000
BTEX, Total	---	250 µg/L	1/discharge event	Grab	BPJ; Hydrostatic Test General Permit, LAG670000
Lead, Total	---	50 µg/L	1/discharge event	Grab	BPJ; Hydrostatic Test General Permit, LAG670000
pH	6.0 s.u.	9.0 s.u.	1/discharge event	Grab	LAC 33:IX.1113.C.1; BPJ; Hydrostatic Test General Permit, LAG670000

BPJ - Best Professional Judgment

Flow
The reporting monthly average and daily maximum flow is based on LAC 33:IX.2707.I.1.b. The measurement frequency of once per discharge event is based on BPJ and the sample type of estimate is based on the LDEQ Hydrostatic Test General Permit, LAG670000, issued March 1, 2003.

TSS
A daily maximum permit limitation for total suspended solids at 90 mg/L is based on the LDEQ Hydrostatic Test General Permit, LAG670000, issued March 1, 2003. The measurement frequency of once per discharge event is based on BPJ and the sample type of estimate is based on the LDEQ Hydrostatic Test General Permit, LAG670000.

Oil and Grease
A daily maximum permit limitation for oil and grease at 15 mg/L is based on the LDEQ Hydrostatic Test General Permit, LAG670000, issued March 1, 2003.

The measurement frequency of once per discharge event is based on BPJ and the sample type of estimate is based on the LDEQ Hydrostatic Test General Permit, LAG670000.

Total Organic Carbon (TOC)
A daily maximum permit limitation for total organic carbon at 50 mg/L is based on the LDEQ Hydrostatic Test General Permit, LAG670000, issued March 1, 2003. The measurement frequency of once per discharge event is based on BPJ and the sample type of estimate is based on the LDEQ Hydrostatic Test General Permit, LAG670000.

Total Benzene
A daily maximum permit limitation for total benzene at 50 μ g/L is based on the LDEQ Hydrostatic Test General Permit, LAG670000, issued March 1, 2003. The measurement frequency of once per discharge event is based on BPJ and the sample type of estimate is based on the LDEQ Hydrostatic Test General Permit, LAG670000.

Total BTEX
A daily maximum permit limitation for total BTEX at 250 μ g/L is based on the LDEQ Hydrostatic Test General Permit, LAG670000, issued March 1, 2003. The measurement frequency of once per discharge event is based on BPJ and the sample type of estimate is based on the LDEQ Hydrostatic Test General Permit, LAG670000.

Total Lead
A daily maximum permit limitation for total lead at 50 μ g/L is based on the LDEQ Hydrostatic Test General Permit, LAG670000, issued March 1, 2003. The measurement frequency of once per discharge event is based on BPJ and the sample type of estimate is based on the LDEQ Hydrostatic Test General Permit, LAG670000.

pH
A minimum limit for pH at 6.0 standard units and a maximum limit for pH at 9.0 standard units is established to ensure that the discharge does not cause an instream exceedance of the numeric criteria for pH as established by LAC 33:IX.1113.C.1. The pH limitation is also established based on the LDEQ Hydrostatic Test General Permit, LAG670000, issued March 1, 2003. The measurement frequency of once per discharge event is based on BPJ and the sample type of estimate is based on the LDEQ Hydrostatic Test General Permit, LAG670000.

Site-Specific Consideration(s)

None

B. WATER QUALITY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations and/or specific analytical results from the permittee's application were screened against state water quality numerical standard based limits by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, September 27, 2001. Based on analytical data, as provided in the November 2006 permit renewal application and the January 10, 2007 application addendum, it has been determined that additional water quality limitations were not warranted.

The following pollutants received water quality based effluent limits:

PARAMETER(S)
None

TMDL Waterbodies

Outfall 002
The discharges from outfall 002 including low contamination potential stormwater runoff from developed and undeveloped portions of the site and de minimus wastewaters including steam trap condensate, fire system test water, eye wash and safety shower station water, uncontaminated clarified water, general facility washwater (facility washdown water, irrigation water, dust control, etc.), uncontaminated hydroblast water, and previously monitored hydrostatic test wastewater from Internal Outfall 004 are to Bayou Braud, Subsegment 040201. Bayou Braud is listed on the 303(d) report as being impaired with Total Ammonia, Phosphorus, Nitrogen, Organic Enrichment/Low Do, Pathogen Indicators, Chlorides, Sulfates, and TDS. A TMDL is scheduled to be completed by March 31, 2011.

Chlorides, Sulfates, and TDS
The 303(d) document states that these impairments are suspected to be caused by site clearance (land development and re-development). TOTAL is not currently in the process of site clearance. Also, based on lab analysis submitted in the November 2006 LPDES permit renewal application the values for these parameters are well below the numerical criteria, as listed in LAC 33:IX.1113.C.2. Therefore, it is not reasonably expected that the discharges from this outfall will cause further Chloride, Sulfates, and/or TDS impairments. No additional requirements have been added to Outfall 002 for these impairments.

Pathogen Indicators
Pathogen Indicators is usually associated with sanitary discharges. Since this outfall does not contain sanitary wastewater as a permitted discharge, it is not reasonably expected to cause further Pathogen Indicator impairments. Therefore, no additional requirements have been added to Outfall 002.

Organic Enrichment/Low DO
The Organic Enrichment/Low DO impairment has been addressed through the TOC limitation established at this outfall. The Daily Maximum TOC limitation of 50 mg/L is consistent with current stormwater guidance and considered protective to waters of the state.

Ammonia (as N), Phosphorus, Nitrate, and Nitrite
Monitor and report only requirements have been established at once per quarter for Ammonia (as N), Total Phosphorus, Total Nitrate (as N), and Total Nitrite (as N) based on 303(d) impairments in Subsegment 040201. This information will be used to gather data for future TMDL development.

Outfall 003
The discharges from outfall 003 including low contamination potential stormwater runoff from the hopper car loading area and the main warehouse roof; and de minimus wastewaters including steam trap condensate, fire system test water, eye wash and safety shower station water, uncontaminated clarified water, general facility washwater (facility washdown water, irrigation water, dust control, etc.), uncontaminated hydroblast water, and previously monitored hydrostatic test wastewater from Internal Outfall 004 are to Bayou Braud, Subsegment 040201. Bayou Braud is listed on the 303(d) report as being impaired with Total Ammonia, Phosphorus, Nitrogen, Organic Enrichment/Low Do, Pathogen Indicators, Chlorides, Sulfates, and TDS. A TMDL is scheduled to be completed by March 31, 2011.

The discharges from this outfall commingle with the Cos-Mar's wastewater at Outfall 002 (LPDES Permit LA0003751) prior to sampling and discharge into Bayou Braud. The discharges from TOTAL Carville's Outfall 003 are not reasonably expected to cause further Pathogen Indicator, Chlorides, Sulfates, and TDS impairments. Therefore, no additional requirements have been added to Outfall 003.

The Ammonia, Phosphorus, Nitrate, and Nitrite impairments were addressed through the addition of monitor and report requirements in Cos-Mar's LPDES permit, LA0003751. Therefore, no additional requirements have been added to TOTAL Carville's Outfall 003.

Internal Outfall 004
The discharges from this outfall can be discharged either through Final Outfall 002 or 003. Therefore, additional requirements would be duplicative and unnecessary. No additional requirements have been added to Internal Outfall 004.

A reopener clause will be established in the permit to include more stringent limits based on final loading allocations in the completed and approved TMDL.

Monitoring frequencies for water quality based limited parameters are established in accordance with the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, September 27, 2001.

8. COMPLIANCE HISTORY/COMMENTS

A Compliance History/DMR Review was conducted for TOTAL's Carville Polystyrene Plant during the period of June 2003 through March 2007.

A. Inspections

A facility inspection conducted on July 24, 2003 did not reveal any areas of concern.

B. The following excursion was reported by the permittee:

DATE	OUTFALL	PARAMETER	REPORTED VALUE	PERMITTED VALUE
10/5/2004	002	pH	9.56 s.u., daily maximum	9.0 s.u., daily maximum

9. "IT" QUESTIONS - APPLICANT'S RESPONSES

The Carville Polystyrene Plant is not a major facility with significant changes, therefore, IT Questions were not required.

10. ENDANGERED SPECIES

The receiving waterbody, Subsegment 040201 of the Pontchartrain Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated September 29, 2006 from Watson (FWS) to Brown (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

11. HISTORIC SITES

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

12. TENTATIVE DETERMINATION

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to a permit for the discharge described in the application.

13. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

14. STORM WATER POLLUTION PREVENTION PLAN (SWP3) REQUIREMENT

In accordance with LAC 33:IX.2707.I.3 and LAC 33:IX.2707.I.4 [40 CFR 122.44(I)(3) and (4)], a Part II condition is proposed for applicability to all storm water discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. The Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit, along with other requirements. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2511.B.14 [40 CFR 122.26(b)(14)].